

2001 Toxics Release Inventory

WASHINGTON

Reported Releases and Other Waste Management Activities (in pounds)

	Total
On-site Releases	21,521,207
Air Emissions	14,295,076
Surface Water Discharges	2,123,223
Underground Injection Class I Wells	0
Underground Injection Class II-V Wells	6
On-site Land Releases to RCRA Subtitle C Landfills	6,109
Other On-site Land Releases	5,096,793
Off-site Releases (Transfers Off-site to Disposal)*	2,371,067
Total On- and Off-site Releases	23,892,274
Recycled On-site	12,662,851
Recycled Off-site	9,974,266
Energy Recovery On-site	11,916,690
Energy Recovery Off-site	2,561,137
Treated On-site	64,744,283
Treated Off-site**	4,485,227
Quantity Released On- and Off-site***	26,302,988
Total Production-related Waste Managed	132,647,442
Non-production-related Waste Managed	250,693
Transfers Off-site for Further Waste Management, including D	Disposal
Recycling	9,863,465
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Non-production-related waste Managed	250,693						
Transfers Off-site for Further Waste Management, including Disposal							
Recycling	9,863,465						
Energy Recovery	3,231,992						
Treatment	1,262,050						
Publicly Owned Treatment Works (POTWs)	3,718,514						
Metals and Metal Category Compounds*	2,091						
Non-metal TRI Chemicals**	3,716,423						
Other Off-site Transfers****	0						
Transfers Off-site to Disposal	2,712,137						
(not including metals to POTWs)							
Total Transfers Off-site for Further Waste	20,788,158						
Management, including Disposal							

- * Transfers to POTWs of metals and metal category compounds are included in off-site releases. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.
- ** Transfers to POTWs of non-metals are included in treated off-site waste management activity.
- *** Excludes non-production-related releases; e.g. releases due to catastrophic events or remedial actions.
- **** Transfers reported without a valid waste management code.

For More Information . . .

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The largest circle in the state map represents
the largest facility for on-site releases in the
state of Washington. All circles are propor-
tionally-sized to represent the on-site releas-
es at each facility within this state.

S	tate/TRI Data
Population	5,993,390
Square Miles	66,581
Total Facilities	347
Total Forms	1,218
Form As	158

	Total
National Rank for Total On- and Off-site Releases*	
Rank	40
Pounds	23,892,274
National Rank for Total On-site Releases**	
Rank	38
Pounds	21,521,207
National Rank for Total Releases within State***	
Rank	40
Pounds	23,344,943
National Rank for Production-related Waste Managed	
Rank	35
Pounds	132,647,442

- * Includes transfers out-of-state for disposal. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.
- * Includes amounts released at the facility. Excludes amounts transferred to other sites.
- *** Excludes transfers for disposal sent out-of-state or sent to other TRI facilities within the state reporting that amount released on-site.

On-site and Off-site Releases for Top Five Chemicals Ranked on Total Releases in the State (All Chemicals)

		On-site Releases Off-site Releases					Off-site Transfers to Disposal			
			Surface		On-site	Transfers	Total	Transferred	Transferred	Transferred
CAS		Air	Water	Underground	Releases to	Off-site to	Releases in	Into	Within	Out of
Number	Chemical	Emissions	Discharges	Injection	Land	Disposal*	the State**	State	State	State
		Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
67-56-1	Methanol	3,330,327	275,015	0	13,310	1,290	3,619,942	0	1,290	0
_	Barium compounds	426	9,842	0	2,373,027	293,251	2,676,546	0	184,340	108,911
7664-93-9	Sulfuric acid	1,819,635	0	0	0	0	1,819,635	0	0	0
7647-01-0	Hydrochloric acid	1,747,776	0	0	0	0	1,747,776	0	0	0
_	Manganese compounds	7,587	215,721	0	1,061,589	365,374	1,650,271	0	300,772	64,602

On-site and Off-site Releases for PBT Chemicals Ranked on Total Releases in the State

		On-site Releases				Off-site Releases		Off-site Transfers to Disposal			
			Surface		On-site	Transfers	Total	Transferred	Transferred	Transferred	
CAS		Air	Water	Underground	Releases to	Off-site to	Releases in	Into	Within	Out of	
Number	Chemical	Emissions	Discharges	Injection	Land	Disposal*	the State**	State	State	State	
		Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	
_	Polycyclic aromatic compounds	22,044.72	277.90	0.00	452.07	370,809.21	393,583.90	4.70	175.91	370,633.30	
_	Lead compounds	6,548.44	5,527.52	0.00	204,248.72	126,345.86	342,670.53	2,393.94	69,809.37	56,536.49	
7439-92-1	Lead	1,245.38	1,403.34	6.10	40,551.63	96,300.39	139,506.85	21,918.08	66,886.89	29,413.70	
191-24-2	Benzo(g,h,i)perylene	767.40	14.10	0.00	12.30	14,201.13	14,994.93	2.00	7.09	14,194.04	
79-94-7	Tetrabromobisphenol A	956.00	0.00	0.00	0.00	673.00	1,629.00	0.00	0.00	673.00	
_	Mercury compounds	174.88	9.72	0.00	203.05	547.79	935.45	158.97	193.64	354.15	
7439-97-6	Mercury	344.83	0.36	0.00	156.01	10.20	511.40	0.00	10.10	0.10	
_	Dioxin and dioxin-like compounds	0.08	0.06	0.00	0.05	0.20	0.39	0.00	0.19	0.01	
_	Dioxin and dioxin-like compounds (in grams)	37.062	27.922	0.000	21.268	91.243	177.496	0.000	84.563	6.680	
118-74-1	Hexachlorobenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1336-36-3	Polychlorinated biphenyls (PCBs)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
309-00-2	Aldrin	***	_	_	_	_	_	_	_	_	
57-74-9	Chlordane	***	_	_	_	_	_	_	_	_	
76-44-8	Heptachlor	***	_	_	_	_	_	_	_	_	
465-73-6	Isodrin	***	_	_	_	_	_	_	_	_	
72-43-5	Methoxychlor	***	_	_	_	_	_	_	_	_	
29082-74-4	Octachlorostyrene	***	_	_	_	_	_	_	_	_	
40487-42-1	Pendimethalin	***	_	_	_	_	_	_	_	_	
608-93-5	Pentachlorobenzene	***	_	_	_	_	_	_	_	_	
8001-35-2	Toxaphene	***	_	_	_	_	_	_	_	_	
1582-09-8	Trifluralin	***	_	_	_	_	_	_	_	_	

^{*} Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

^{**} The chemical ranking is based on the amounts in this column.

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On-site and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (All Chemicals)

			On-site		Off-site	Releases			
		<u>Underground Injection</u> <u>On-site Releases to Land</u>					(Transfers Off-	site to Disposal)	
		Surface			RCRA	Other	Total	Transferred	
	Air	Water	Class I	Class II-V	Subtitle C	On-site Land	On-site	Within	Out of
Facility, City, County	Emissions	Discharges	Wells	Wells	Landfills	Releases	Releases*	State	State
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Transalta Centralia Generation/Mining, Centralia, Lewis	523,640	655	0	0	0	4,398,692	4,922,987	156,937	0
Weyerhaeuser Co., Longview, Cowlitz	2,247,429	96,263	0	0	0	0	2,343,692	106,501	0
Tesoro Refining & Marketing Co., Anacortes, Skagit	1,439,176	1,751	0	0	0	1,697	1,442,624	6	99
Fort James Camas L.L.C., Camas, Clark	1,078,979	88,517	0	0	1,255	43,050	1,211,801	0	38,011
Boise Cascade Paper Div., Wallula, Walla Walla	913,841	101,965	0	0	0	20,024	1,035,831	0	7
Kimberly-Clark Corp., Everett, Snohomish	460,702	510,178	0	0	0	32,162	1,003,043	97,004	0
Simpson Tacoma Kraft Co., Tacoma, Pierce	687,330	106,400	0	0	0	0	793,730	566	0
Agrium Kennewick Fertilizer Ops., Kennewick, Benton**	670,865	32,200	0	0	0	86,405	789,470	0	125,090
Longview Fibre Co., Longview, Cowlitz	503,650	167,423	0	0	0	0	671,073	149,902	0
Port Townsend Paper Corp., Port Townsend, Jefferson	510,571	36,620	0	0	0	68,476	615,667	0	0

On-site and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (PBT Chemicals)

			On-site		Off-site	Releases			
	<u>Underground Injection</u> <u>On-site Releases to Land</u>						(Transfers Off-s	site to Disposal)	
		Surface			RCRA	Other	Total	Transferred	Transferred
	Air	Water	Class I	Class II-V	Subtitle C	On-site Land	On-site	Within	Out of
Facility, City, County	Emissions	Discharges	Wells	Wells	Landfills	Releases	Releases*	State	State
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
U.S. Army Fort Lewis Range Facility, Fort Lewis, Pierce	235.00	0.00	0.00	0.00	0.00	82,726.00	82,961.00	0.00	0.00
Transalta Centralia Generation/Mining, Centralia, Lewis	270.18	4.90	0.00	0.00	0.00	56,272.22	56,547.30	389.00	0.00
Kettle River Ops. Mill, Republic, Ferry	1.60	0.00	0.00	0.00	0.00	43,000.00	43,001.60	0.00	0.00
U.S. Navy Puget Sound Naval Shipyard, Bremerton, Kitsap	2.00	589.00	0.00	0.00	0.00	17,468.00	18,059.00	62,831.00	25,161.00
U.S. Army Yakima Training Center Range Ops., Yakima, Yakima	360.00	0.00	0.00	0.00	0.00	14,114.00	14,474.00	0.00	0.00
U.S. DOE Hanford Site, Richland, Benton	5.00	0.50	0.00	0.00	3,880.00	7,600.00	11,485.50	0.00	197.90
Northwest Alloys Inc., Addy, Stevens	13.00	0.00	0.00	0.00	0.00	9,367.00	9,380.00	0.00	37.00
Longview Aluminum L.L.C., Longview, Cowlitz	7,989.40	118.70	0.00	0.00	0.00	0.00	8,108.10	9.10	367,111.00
Kimberly-Clark Corp., Everett, Snohomish	8.30	4,417.24	0.00	0.00	0.00	617.02	5,042.55	1,860.35	0.00
Lamefoot Mine, Republic, Ferry	0.10	0.00	0.00	0.00	0.00	4,247.90	4,248.00	0.00	0.00

^{*} The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.

^{**} The reports for one facility, Agrium Kennewick Fertilizer Ops. in Kennewick, were omitted from the database due to an EPA data processing error. They have been included in this table, but not in the other tables in this report.

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Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (All Chemicals)

								Total	Total Non-
			Energy	Energy			Quantity	Production-	Production-
	Recycled	Recycled	Recovery	Recovery	Treated	Treated	Released On-	related	related
Facility, City, County	On-site	Off-site	On-site	Off-site	On-site	Off-site	and Off-site*	Waste Managed	Waste Managed
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Transalta Centralia Generation/Mining, Centralia, Lewis	0	0	0	0	73,921	0	5,446,118	5,520,039	0
Weyerhaeuser Co., Longview, Cowlitz	1,000	0	0	0	7,856,450	0	2,413,426	10,270,876	100
Emerald Services Inc., Tacoma, Pierce	307,710	0	0	1,976,707	0	0	2,284,417	4,568,834	0
Tesoro Refining & Marketing Co., Anacortes, Skagit	345,167	0	2,377,256	0	680,202	606	1,434,672	4,837,903	0
Fort James Camas L.L.C., Camas, Clark	0	0	0	0	11,914,000	116	1,325,081	13,239,197	0
Boise Cascade Paper Div., Wallula, Walla Walla	0	0	29,000	0	9,621,269	0	1,143,974	10,794,243	0
Kimberly-Clark Corp., Everett, Snohomish	0	0	190,904	0	5,951,692	0	1,100,007	7,242,603	0
Agrium Kennewick Fertilizer Ops., Kennewick, Benton**	0	0	0	0	0	0	829,590	829,590	0
Longview Fibre Co., Longview, Cowlitz	14,000	0	200,420	0	8,136,400	0	821,411	9,172,231	0
Simpson Tacoma Kraft Co., Tacoma, Pierce	0	0	313,000	0	5,013,679	0	793,567	6,120,246	0

Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (PBT Chemicals)

								Total	Total Non-
			Energy	Energy			Quantity	Production-	Production-
	Recycled	Recycled	Recovery	Recovery	Treated	Treated	Released On-	related	related
Facility, City, County	On-site	Off-site	On-site	Off-site	On-site	Off-site	and Off-site*	Waste Managed	Waste Managed
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Longview Aluminum L.L.C., Longview, Cowlitz	0.00	165.00	0.00	0.00	0.00	272.00	375,227.00	375,664.00	0.00
U.S. Navy Puget Sound Naval Shipyard, Bremerton, Kitsap	0.00	0.00	0.00	0.00	0.00	0.00	88,583.00	88,583.00	17,468.00
U.S. Army Fort Lewis Range Facility, Fort Lewis, Pierce	0.00	0.00	0.00	0.00	0.00	0.00	82,961.00	82,961.00	0.00
Transalta Centralia Generation/Mining, Centralia, Lewis	0.00	0.00	0.00	0.00	0.00	0.00	56,944.00	56,944.00	0.00
Bay Zinc Co. Inc., Moxee City, Yakima	0.00	0.00	0.00	0.00	0.00	0.00	48,742.00	48,742.00	0.00
Kettle River Ops. Mill, Republic, Ferry	0.00	0.00	0.00	0.00	0.00	0.00	43,000.00	43,000.00	0.00
Burlington Environmental Inc., Seattle, King	0.00	390,717.00	0.00	0.00	0.00	0.00	35,464.00	426,181.00	0.00
City of Tacoma Steam Plant No. 2, Tacoma, Pierce	0.00	0.00	0.00	0.00	0.00	0.00	18,112.00	18,112.00	0.00
ETNW Corp., Redmond, King	0.00	15,000.00	0.00	0.00	0.00	0.00	15,000.00	30,000.00	0.00
U.S. Army Yakima Training Center Range Ops., Yakima, Yakima	0.00	0.00	0.00	0.00	0.00	0.00	14,474.00	14,474.00	0.00

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